STRUCTURAL ASSESSMENT REPORT BUILDING 01

HISTORIC BUILDING STRUCTURAL ASSESSMENT

1000 WATER AVENUE SELMA, AL 36703 CONTRACT NO. W91278-21-D-0003, TASK ORDER NO. W91278-24-F-0153

PROJECT NO. 506849

CADD Code: CHC23016



US Army Corps of Engineers Mobile District

Prepared for:

USACE MOBILE DISTRICT

109 St. Joseph Street Mobile, Alabama 36602

Prepared by:

RAYMOND-POND ENTERPRISE SOLUTIONS JV LLC

1035 Green Street SE, Suite A Conyers, Georgia 30012 (770) 483-9592

14 FEB 2025





This Page Intentionally Left Blank



TABLE OF CONTENTS

EXECU	TIVE SUMMARY1
1	INTRODUCTION1
1-1	SCOPE AND LIMITATION OF THE EVALUATION1
1-2	DESCRIPTION OF STRUCTURE4
2	Observed Deficiencies5
2-1	GRADES AROUND BUILDINGS
2-2	FOUNDATIONS5
2-3	WALLS
2-4	HORIZONTAL FRAMING7
2-5	ROOF FRAMING8
2-6	BUILDING ENVELOPE8
2-7	ROOF9
2-8	MISCELLANEOUS/ADDITIONAL OBSERVATIONS
3	Description/Summary of Soldier Wall Pile Installation
4	Discussion/typical repairs11
4-1	IEBC WIND AND SEISMIC ANALYSIS11
4-2	TYPICAL RECOMMENDATIONS FOR REPAIRS / RETROFITTING 12
4-3	ADDITIONAL RECOMMENDATIONS DURING SLOPE STABILIZATION 14
5	Conclusion

FIGURES

Figure 1-1 Building Location	2
Figure 1-2 Building Location Key	2
Figure 1-3 Geographic Location – State View.	3
Figure 1-4 Geographic Location – City View	3



EXECUTIVE SUMMARY

Raymond-Pond Enterprise Solutions JV LLC (RPJV) has been engaged to perform structural condition assessments of thirteen buildings in Selma, Alabama In general, these assessment reports shall identify areas of concern with respect to overall building stability or individual building component stability, both currently and when potentially subjected to the effects of constructing the Selma Bank Stabilization Project.

Most of the buildings in this district were built before the turn of the previous century, in the late 1800's. Typical construction for buildings of this era includes multi-wythe brick walls supporting wood floor joists and wood roof trusses or joists. The framing members are set in pockets and bear directly on the brick. Typical floor and roof sheathing would be 1x wood slats laid either perpendicular to the joists or diagonally. Foundations typically consisted of bricks or stones, laid down before the walls.

Major structural issues observed during the onsite assessment consisted of the following:

- 1. Significant cracks in the brick masonry at all four exterior walls.
- 2. South wall appears to be sloping outward.
- 3. Roof joist damage from previous fire
- 4. The foundation for exterior deck at the south side of the building appears to be shifting.
- 5. Additional issues and clarification about these issues are in Section 2 of this report.

1 INTRODUCTION

The building was visited on October 28 and 29, 2024 by RPJV Structural Engineers . They met with the property.

1-1 SCOPE AND LIMITATION OF THE EVALUATION

The scope of the evaluation includes the following:

- a. On-site computer scanning and BIM creation for the existing buildings.
- b. On-site visual observations by a structural engineer. Destructive testing was not performed and is out of scope. Material testing was not performed and is out of scope.
- c. Provide recommendations for potential retrofitting and monitoring measures that could be taken to reduce damage to this structure as a result of the Selma Bank Stabilization Project.

The nature of the evaluation provided by RPJV was limited to the structure and building envelope. RPJV did not provide architectural (other than building envelope observation), mechanical (HVAC, plumbing, and fire protection), electrical, industrial



hygiene, or environmental engineering services as part of this evaluation. This evaluation is based only on visual observations. Items that were evaluated are limited to items that were seen during the observation.

RPJV has not coordinated the construction activities with the USACE. RPJV is providing recommendations based in structural principles. The building cannot be deemed "safe" after any recommended retrofits are completed. Nor can RPJV be ultimately responsible for further damage done to the building during the upcoming construction activities.

The building for which this report was performed is shown below in Figure 1-1 & 1-2.



Figure 1-1 Building Location







The approximate location of the building is shown below in Figure 1-3 & 1-4.



Figure 1-3 Geographic Location – State View.



Figure 1-4 Geographic Location – City View.



1-2 DESCRIPTION OF STRUCTURE

The building is currently partially occupied by **Example 1**. The office utilizes level 2 while level 1 remains unoccupied. The property is a contributing member of the Water Avenue Historical District which is on the National Register of Historic Places. According to the Dallas County Tax Assessor 1000 Water Ave was originally constructed in 1900; making the building 124 years old at the time this report was written.

There were no existing drawings available for the building. Limited LiDAR scans were performed at areas that were accessible to the equipment to develop as-built floor plans. LiDAR is an acronym for Light Detection and Ranging. In LiDAR, laser light is sent from a source and reflected from objects in the scene. The reflected light is detected by a receiver and the time of flight is used to develop a distance map of the objects in the scene. This in turn was used to produce as-built floor plan CAD drawings.

Based on visual observations, these buildings were constructed with load-bearing multiwythe clay brick masonry walls. It is assumed that these buildings are supported on shallow foundations. Floor and roof structures were wood joists and sheathing. Interior walls were observed to be constructed with 2x4 studs and stairs were formed with wood stringers and 2x stair treads.

The wood joists supporting each floor level of the structure are secured in pockets in the brick walls. No exposed lateral force system was observed in the building; therefore, it was assumed that the brick walls act as shear walls.

The building at 1000 Water Avenue was constructed with two basement levels below the street level first floor. The lower basement level was constructed with a clay brick retaining wall on the north side that created a room that was only ½ of the depth of the upper floors. The south (rear) wall and west (side wall) were exposed clay brick perimeter walls and the east side wall was a clay brick wall that acted as the demising wall separating the building from 1004 Water Avenue. The floor of the lower basement was a concrete grade slab.

The upper basement extended the full depth of the first floor above. The south half (rear) of the floor was located over the lower basement and the floor consisted of timber joists spanning east west and supporting wood plank decking. The floor for the north (front) half was concrete grade slab on the west half and exposed dirt on the east half. The front (north) basement wall was the foundation wall of the building.

On the first floor, all finishes had been removed, allowing observation of the masonry walls and the floor joists above, no interior partitions were located on the first floor except for the side walls of the stairwell leading to the second floor.



The second floor of the building was occupied by a law office and interior partitions separated space into several offices. The walls, ceiling and floor were finished, so the structure was not visible.

The attic space above the second floor was accessible through a ceiling hatch. The roof structure consisted of timber framing and wood plank decking.

The structural observations of the building identified several structural issues which are discussed in section 2 below.

2 OBSERVED DEFICIENCIES

The building deficiencies listed below corresponds with the Photo Log provided as Attachment 1, and As-Built floor plans with approximate locations of observed deficiencies provided as Attachment 2.

2-1 GRADES AROUND BUILDINGS

G-1: North Grade – Consists of a sidewalk that runs along Water Avenue. The sidewalk grade elevation is at approximately the same elevation at the first floor. No significant deficiencies were noted.

G-2: West Grade - From the south wall, the grade is fairly flat for the first approximately 10 feet then slopes steeply to the river. At the southwest corner of the building a concrete landing is located at the bottom of the exterior stairs. This landing has been undermined and has fallen approximately a foot and broken into two sections.

G-3: South Grade - West Grade - The grade adjacent to the west wall of the slopes steeply downward toward the south. Exterior concrete stairs are located adjacent to the west wall of the building. These stairs are worn and overgrown but in adequate condition.

G-4: Southwest Corner – fallen concrete pad at base of stairs

The east side of the building was constructed adjacent to the building at 1004 Water Avenue; therefore, no exposed grade is located on the east side.

2-2 FOUNDATIONS

The footings for the loadbearing walls and interior columns were not exposed and were not observed. As noted in section 1-2, the foundations are assumed to be shallow spread footings.

FUB-1: At the upper basement, the north wall of the basement is foundation retaining wall for the building. The wall appeared to be in generally adequate condition. However, the plastered surface of the wall limited the visibility of any existing cracks.



FLB-1: The front (north) wall of the lower basement is a retaining wall for the floor slab above. The wall was in generally adequate condition.

2-3 WALLS

The walls consist of interior and exterior multi-wythe load bearing clay brick walls. The interior faces of exterior wall surfaces and both faces of interior walls are discussed in this section. Exterior wall surfaces of exterior walls are discussed in the "Building Envelope Section."

In general, the exterior and interior load-bearing brick masonry walls showed signs of deterioration including diagonal step cracking and vertical cracking at corners, cracks at jambs of windows and arches; deep and widespread mortar erosion, loss of brick material at select locations due to poor quality, moisture ingress, and/or freeze thaw cycles. Numerous locations show parge coats and brick infill and patching. For more information see below.

Lower Basement:

WLB-1: Vertical crack at southeast corner - base of wall.

WLB-2 Vertical cracks at southeast corner - top of wall.

WLB-3: Vertical cracks at south wall under west door.

Upper Basement:

WUB-1: Vertical cracks at northeast corner.

WUB-2: Brick wall damage below first level floor girder, south wall.

WUB-3 Vertical crack in west exterior wall at top of stairs to first level.

WUB-4 Vertical crack in west exterior wall at bottom of stairs to first level.

First Level:

- W1-1: Vertical cracks at northeast, northwest and southeast. See Pictures W1-1A, W1-1B and W1-1C.
- W1-2: Vertical crack in east wall
- W1-3: Vertical crack in west wall
- W1-4: Vertical crack in south wall under west door opening

Second Level:

W2-1: Significant vertical crack in northwest corner of the northwest office. Separation of approximately ½" has occurred.



- W2-2: Cracked fireplace brick at south wall in east and west offices. Fireplaces are not plumb and small separation at the floor has occurred. See Pictures W2-2A and W2-2B
- W2-3: Bricks in the east wall in southeast office are deteriorating, mortar is missing in some joints and the coursing is not even, several stair step and vertical cracks are visible. Wall appears to have minor bulging near the ceiling.
- W2-4: On west wall of northwest office, bricks have cracked at upper corner of infilled window
- W2-5: Large crack on east wall in southeast office

<u>Attic:</u>

The four exterior walls in the attic area were not accessible.

2-4 HORIZONTAL FRAMING

Upper Basement:

The joists for the upper basement span north to south; no significant damage to the joists was observed. The joists bear on the brick masonry walls and the infill bricks between the joists appear to have been patched and repaired at some point in the past.

HFUB-1: At two locations, the floor deck is damaged, resulting in two holes in the floor. See Pictures WUB-1A and WUB-1B.

First Level:

- HF1-1: All floor joists for the level have had supplemental sistered joists added adjacent to the original floor joists.
- HF1-2: Decking has been replaced at several locations of the floor.
- HF1-3: Along the north wall, the two hatch openings to the sidewalk have been filled with metal deck and concrete. The steel beams supporting the deck have significant surface corrosion.
- HF1-4: The timber column at the center of the floor has a significantly out of plumb. It appears that supplemental posts were added at some later point. These posts are founded on dry-stacked masonry footings



Second Level:

- HF2-1: Infill brick between the joists have been patched and reworked.
- HF2-2: Floor deck damage on the east side.
- HF2-3: The north wall appears to have shifted away from the floor framing on the west side of the building.
- HF2-4: Supplemental joist has been added on the west side near the center of the building
- HF2-5: Floor deck on the second level is sloped on the east side of the building

2-5 ROOF FRAMING

Roof framing was visible through a ceiling hatch. The attic space was not decked and too congested to observe the entire roof area.

- RF-1: New joists and deck have been added to the southeast corner. Some joists do not appear to be fully supported. This may have been the result of fire damage. The remaining joists and decking in the vicinity of the hatch have significant surface charring
- RF-2: The attic shows signs of significant fire damage. Several roof joists have been sistered.
- RF-3: The load-bearing kneewall on the west side of the ceiling hatch has been replaced with 2x4 posts supporting roof joists. Not all of the joists have posts.
- RF-4: The kneewall on the east side of the hatch is in place. Charred joists are visible

2-6 BUILDING ENVELOPE

Lower Basement:

BELB-1: Each door on south wall has significant deterioration

Upper Basement:

- BEUB-1: Doors and frames are deteriorated. No railing at opening.
- BEUB-2: Exterior of window frames and surrounding bricks are deteriorated



BEUB-3: Crack in exterior face of south wall under window

First Level:

- BE1-1: Abandoned Deck on south side no access. Footing appears to have shifted.
- BE1-2: Northwest corner appears to have been repaired at the first and second levels.
- BE1-3: Cracks at the top corner of each window on the north wall

Second Level:

BE2-1: Typical window frame on north wall, glazing and frame is deteriorated.

2-7 ROOF

No access to the roof was available. Roof observations are based on photographs from a drone flight over the building provided by Multivista. From the aerial photo, the roof has a parapet on the north, east and west sides of the building and the roof slopes to the south. The roof is a metal deck that spans north to south. The southernmost section of roof deck appears to be newer than the remainder of the roof. There is one roof penetration close to the north wall, near the center of the building. The deck has several patches which may have been at locations of previous penetrations that have been removed. No standing water was observed on the roof. The photo does not have sufficient detail to determine the condition of the roof flashing. The age and condition of the roof are not known.

R-1 General view of metal roof

R-2 General view of metal roof

2-8 MISCELLANEOUS/ADDITIONAL OBSERVATIONS

Vertical cracks have occurred in the southeast and southwest corners of the building. The cracks extend from the lower basement level though the second level and appear to slightly widen as they go up the building. Additionally, the fireplaces located on the south wall are not plumb and have large cracks which indicate possible movement of the wall.

The cracking at the southeast and southwest corners will limit the lateral tension forces that can be resisted by the east and west shear walls due to wall movement in the south



direction. Additionally cracking on the north wall and the exterior repairs at the northwest corner may indicated movement in the north wall.

At the first, second and attic levels, a timber girder bears on the south wall at the midpoint. This girder provides force transfer into the wall from the floor diaphragms; however, the anchorage of the girder to the wall was not visible, so the capacity of these attachment points cannot be determined. Joists are located adjacent to the south wall, but no anchorage to the wall was visible.

The floor joists bear on the east and west exterior walls, with infill brick between the joists; the condition of the infill varies. At some locations the bricks have been repaired and re-mortared and are tight to the joists at other locations, the original bricks are loose. It could not be determined if the joists are directly anchored to the brick wall. Therefore, the capacity of the lateral load path in the east west direction cannot be determined.

3 DESCRIPTION/SUMMARY OF SOLDIER WALL PILE INSTALLATION

The USACE Mobile District plans to install a soldier pile wall on the eastern and western sides of the Edmund Pettus Bridge to provide bank stabilization and manage flood risk along the northern side of the Alabama River. Below descriptions of the proposed project are from the July 2023 Conceptual Design Submittal documents of the "Selma, Alabama, Flood Risk Management Bank Stabilization" project.

The proposed project will include clearing and grubbing of the bank on the east and west sides of the northern bank of the Alabama River near the Edmund Pettus Bridge. Demolition will include removal of a brick patio and wooden deck between Building 8 and the Edmund Pettus Bridge; concrete pavement between Building 7 and the Edmund Pettus Bridge; and storm drainage piping at various points along the bank.

The proposed project construction will also include a soldier pile wall on each side of the Edmund Pettus Bridge, one to the east and one to the west. The work will include scour protection, secondary retaining walls, and storm drainage system components at each wall.

Per drawing CS101, for the western half of the project, the soldier pile wall (identified in the design submittal as "Soldier Pile Wall West") will be approximately 379 feet long starting alongside Building 1 and continuing south parallel to the building to station 0+47.53. The wall turns east to parallel the river until station 3+40.90 where the wall turns north to parallel Building 7 and ends alongside the building at station 3+78.56. Note this stationing is slightly different from the stationing shown on CG101 and CG201. A secondary retaining wall is proposed between the soldier pile wall and the existing buildings. A storm drainage system will be provided to capture storm runoff from between the existing buildings and the retaining wall, to intercept an existing storm drainage outfall, and to discharge storm runoff beyond the soldier pile wall.

Per CS102, CG102 and CG201, for the eastern half of the project, the soldier pile wall (identified in the design submittal as "Soldier Pile Wall East") will be approximately 443



feet long starting alongside Edmund Pettus Bridge at the corner of the existing concrete pad and continuing south parallel to the Building 8 until station 0+30.66. The wall turns east until station 1+86.74 where it turns parallel to the buildings heading east-northeast. The wall ends at station 4+42.74 beyond Building 13. A secondary retaining wall is proposed between the soldier pile wall and the existing buildings. A storm drainage system will be provided to capture storm runoff from between the existing buildings and the retaining wall, to intercept an existing storm drainage outfall, and to discharge storm runoff beyond the soldier pile wall. Stairs are proposed to provide access to lower areas at the concrete pad west of Building 8, the brick pad west of Building 13, and the top of the secondary retaining wall south of Building 13.

4 DISCUSSION/TYPICAL REPAIRS

Building 1 exhibits a number of existing structural deficiencies due to a combination of dated construction methods, damaged members and inadequate repairs and maintenance. Due to the building methods in use at the time of construction, this building does not comply with current codes for construction or design loads. In addition, the building members have been damaged due to fire, water infiltration from poor roofing maintenance and lack of waterproofing. Repairs have been intermittent and inadequate. The nature and sheer number of these deficiencies is not conducive to quantifying or analyzing each of them.

The vibrations from the Selma Bank Stabilization Project are expected to have an adverse effect on the building, leading to increased damage and additional deficiencies, which could impact the overall stability of the structure. If stability is compromised, affected portions of some or all of the buildings could fall. This debris could impact the construction crews performing the work from barges in the river or from the sloping bank as well as the general public.

4-1 IEBC WIND AND SEISMIC ANALYSIS

Wind forces: Selma Alabama is in a zone where the design wind speed for new construction is 113 MPH.

Seismic forces: These buildings are in Risk Category = II. With a default Site Class D, values derived from seismic force maps indicate that these buildings are in Seismic Design Category (SDC) B.

Due to this lower Seismic Design Category, the seismic upgrade provisions of the International Existing Building Code (IEBC) that are normally triggered during substantial repair work are not triggered.

However, it is understood that damaged or undamaged Unreinforced Masonry (URM) buildings like these are not expected to perform well during an IBC design seismic event. IEBC Appendix A1 *Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings* can be considered a reference. For buildings in SDC B, the



Chapter recommends evaluating and potentially reinforcing parapets and anchorage of walls to diaphragms. Note that these items have been found to be deficient in the observation portion of this report.

In addition, the current poor building condition including wall cracks, degraded mortar, and wood member damage all will contribute to exacerbate any seismic issues.

4-2 TYPICAL RECOMMENDATIONS FOR REPAIRS / RETROFITTING

The following items are typical repairs that are frequently completed for temporary stabilization of buildings with similar structural systems and observed deficiencies. The typical repairs are not to be used as a design narrative and does not guarantee the prevention of further damage during construction. Additional investigation and structural analysis/testing that is not included in the scope of this project will be required to bring it to a fully occupiable and IEBC Code-compliant state.

1. Existing brick walls are not positively connected to the roof framing members.

Without proper anchorage, out-of-plane loading on the walls can cause them to separate from the framing allowing the roof to collapse and walls to fall.

- a. A typical method of repair would be to install wall-to-roof anchors. This would consist of providing threaded rods to positively connect the roof framing to the brick walls. The rod is located below the roof diaphragm adjacent to a joist, placed in a hole drilled through the brick connected to an anchor plate on the exterior face of the walls and to a strap connected to the roof framing. These anchors would keep the brick walls from pulling away from the roof diaphragm.
- 2. Existing brick walls are not positively connected to the floor framing members.

Without proper anchorage, out-of-plane loading on the walls can cause them to separate from the framing causing the floor to collapse subjecting the walls to excessive deflections.

- a. A typical method of repair would be to install wall-to-floor anchors. This would consist of providing threaded rods to positively connect the floor framing to the brick walls. The rod is located below the floor diaphragm adjacent to a joist, placed in a hole drilled through the brick connected to an anchor plate on the exterior face of the walls and to a strap connected to the floor framing. These anchors would keep the brick walls from pulling away from the floor diaphragm.
- 3. Existing walls are not connected to the roof and floor to provide in-plane shear transfer to the diaphragms.



In this scenario, the only way shear is transferred is through out-of-plane bending of the framing members in the joist pockets.

- a. A typical method of repair would be to provide supplemental framing along the perimeter of the roof and floors that connect the roof and floors to the walls. The detail would consist of new wood full depth blocking with an anchor into the brick wall and new nailing provided from the diaphragm into the blocking. This connection would tie the diaphragm and the walls together, transferring lateral forces from the diaphragm to the walls. A supplemental steel angle along the perimeter of the roof and floors that connect the roof and floors to the walls was considered as an option. However, it has been discounted due to concerns about the capacity of the brick and mortar, as well as the condition of the wood framing itself.
- 4. Failure of existing gravity supports for framing members.

This creates unstable conditions where framing of the floors could fail and collapse.

- a. A typical method of repair would include new supports at these locations that follows the load path down to new foundations.
- 5. Cracks in the existing brick wall and deterioration of the mortar between the bricks.

Additional vibrations associated with the construction could cause additional damage and brick/area loss

- a. A typical retrofit solution would involve using gunnite to replace the missing bricks. Other retrofitting options for these areas might include epoxy grout repair of the cracks and repointing of the mortar joints.
- 6. Existing openings in the brick wall that are unshored or shored with deteriorated wood construction.

This is not a stable condition and could result in local collapse of the wall.

- a. A typical method of repair would be to fill in the openings with CMU block or rebuild the openings correctly and replace missing bricks or gunnite those areas.
- 7. Existing wood framing exposed to water and rot damage has occurred.

The wood should be tested to determine the extent of the damage and if it needs to be replaced or repaired.

a. A typical method of repair would include repair/replacement of the roof decking and any deficient framing members. Replacement of the



waterproofing, roofing, doors/windows, and flashing to prevent water infiltration would be required as well.

- 8. Unstable exterior canopies and balconies.
 - a. A typical method of repair would include repairing or removing the balconies.
- 9. Tall parapets represent a potential hazard that could be amplified by construction vibrations.

For unreinforced brick masonry, this creates a condition where the brick can deflect beyond restorative moment and collapse on the roof, adjacent structures or on the street below.

10. The rear portion of the building that is nearest to the river where the existing damage is greatest could be removed altogether.

This would increase the distance from the work area and would decrease the vibration intensity and effects on the rest of the structure.

Caution should be exercised if large portions of the buildings are removed. Due to the overall unstable condition of the buildings and the unknown condition of soil beneath the buildings, major demolition could result in the collapse of areas intended to remain. Additionally, major demolition could cause unintended damage or the collapse of the neighboring buildings. Additional analysis and retrofits may be required based on portions removed.

11. Another option would involve demolishing the buildings but leaving the front and, where visible, the side walls. These walls would be braced by steel framing.

This action could preserve visible architectural characteristics and may satisfy Historic Preservation requirements. Then the demolished portions of the buildings could be rebuilt to the current Code and according to the owner's needs.

Caution should be exercised if large portions of the buildings are removed. Due to the overall unstable condition of the buildings and the unknown condition of soil beneath the buildings, major demolition could result in the collapse of areas intended to remain. Additionally, major demolition could cause unintended damage or the collapse of the neighboring buildings.

4-3 ADDITIONAL RECOMMENDATIONS DURING SLOPE STABILIZATION

Many elements were observed that are not code compliant or were structurally deficient. For these reasons, there are concerns that the building may not withstand the vibrations



from the new construction operations involved in the Selma Bank Stabilization Project. This section discusses recommendations for actions that can be taken during the Selma Slope Stabilization Project construction work.

- Because of the anticipated effects on the building by the construction work, it is recommended that the building remain unoccupied during soldier pile installation, and when heavy equipment is moving. Access to the sidewalk and street parking along Water Avenue should be blocked off in case there is falling debris. A safety watch should be in place with active communication to construction crews performing the work from barges in the river or from the sloping bank.
- 2. While foundation condition and depth could not be determined from this nondestructive visual assessment, there are cracks in the basement walls and concrete slab on grade that indicate settlement movement towards the river. If the wall construction causes any settlement of the grade surrounding the building, the deteriorated south wall may not have sufficient strength to resist the changes in subgrade bearing; therefore, underpinning of the foundation for the south wall may be required.
- 3. During soldier pile installation, it is recommended that vibration monitoring be provided at this building. Vibration criteria based on American Society of Civil Engineers (ASCE) and other valid industry standards and a monitoring system should be created and performed by a specialty engineer with a minimum of 10 years of experience in this field.
 - a. It is recommended that video cameras be installed in the building to monitor any damage or displacements that may occur in real time so that pile installation can be stopped and modified as required.
 - b. It is recommended that cracks be monitored during the construction process to determine if the cracks continue to open or if the wall moves on its foundation. This should include crack monitors at the existing large cracks in the brick walls as well as cracks at arches and jambs. If monitored in real-time, these may also assist in ensuring the safety of construction crews. Work could then be stopped and modified as required.

5 CONCLUSION

Based on visual observations, it is RPJV's opinion that Building 1 is in poor overall condition. This is due to the inherent structural deficiencies of the original construction methods in association with the condition issues and other failures that have occurred during the life of the building. In addition to the risk associated with the building as assessed under modern codes, interdependent elements of the building together are such that selective repairs or retrofits cannot stabilize the structure to eliminate life safety issues. Caution should be exercised during the construction period when heavy equipment is in use and during the installation of the soldier piles to limit vibrations, to avoid additional risks to construction workers.



The improvement measures outlined above are intended solely to mitigate potential risks to personnel during the construction of the Selma Bank Stabilization Project and should not be interpreted as establishing a Code-compliant building during or after construction work is completed.













		E	
WUB-1B	Picture WUB-1B: Upper basement, brick damage below first floor girder at southeast corner	WUB-2	Picture WUB-2: Upper basement, brick damage below first floor girder
WUB-3	Picture WUB-3: Upper basement, vertical crack in west wall near stairs to first level	W1-1A	Picture W1-1A: First level, vertical crack at northwest corner











W2-5	Picture W2-5: Second level, large crack on east wall in southeast office	











HF2-3	Picture HF2-3: Second level, north wall appears shifts from joist on west side of building	HF2-4	Picture HF2-4: Second level, supplemental joist added on west side near center
HF2-5	Picture HF2-5: Second level, floor deck is sloped on east side of building		



























B



ч



FINAL INSPECTION AND FINDINGS REPORT

SHEE	SELMA, AL SOLDIER PILE WALL PROJECT - STRUCTURAL ASSESSMENT RPJV PROJECT NUMBER 1240599 / 1534.026	US ARMY CORPS OF ENGINEERS MOBILE DISTRICT 109 SAINT JOSEPH STREET MOBILE, ALABAMA	DRAWN BY: CHECKED BY:	ISSUE DATE: 02/14/2025 TASK ORDER NO. : W91278-24-F-0153 CONTRACT NO.:				US Army of Engine	
	01 - 1000 WATER AVE, SELMA AL, 36703 LOWER BASEMENT FLOOR PLAN	RAYMOND POND ENTERPRISE SOLUTIONS JV LLC 1224 ROYAL DRIVE CONYERS, GEORGIA 30094	CLIENT PROJECT NO. : 506849 SIZE: ANSI D	W91278-21-D-0003 CADD CODE: CHC23016	MARK	DESCRIPTION	DATE	Corps eers ®	J





GENERAL NOTES

1) ALL DIMENSIONS ARE IN FEET & INCHES, ANGLES IN DEGREE AND LEVELS IN FEET & INCHES UNLESS NOTED OTHERWISE (U.N.O.)

2) DRAWINGS SHALL NOT BE SCALED, FOLLOW WRITTEN DIMENSIONS.

3) EXISTING FLOOR PLAN AND DIMENSIONS ARE BASED OF THE SURVEY DRAWINGS PROVIDED BY MULTIVISTA

ABBREVIATION A.F.F - CEILING ABOVE FINISH LEVEL

SCALE:

NONE

10

N

ω

4

S

0

7

8



8

7

FINAL INSPECTION AND FINDINGS REPORT

		SELMA, AL	US ARMY CORPS OF ENGINEERS	DRAWN BY:	ISSUE DATE: 02/14/2025	$\cap \vdash$				
<u>γ</u> μ	Я	SOLDIER PILE WALL PROJECT - STRUCTURAL ASSESSMENT	109 SAINT JOSEPH STREET	CHECKED BY:	TASK ORDER NO. : W91278-24-F-0153					Am
	8	RPJV PROJECT NUMBER 12405997 1534.026		SUBMITTED BY:	CONTRACT NO.: W91278-21-D-0003					ny C
	Ð	01 - 1000 WATER AVE, SELMA AL, 36703	RAYMOND POND ENTERPRISE SOLUTIONS JV LLC	CLIENT PROJECT NO. : 506849	CADD CODE: CHC23016					orp
			CONYERS, GEORGIA 30094	SIZE: ANSI D			MARK	DESCRIPTION	DATE	° °





1) ALL DIMENSIONS ARE IN FEET & INCHES, ANGLES IN DEGREE AND LEVELS IN FEET & INCHES UNLESS NOTED OTHERWISE (U.N.O.)

2) DRAWINGS SHALL NOT BE SCALED, FOLLOW WRITTEN DIMENSIONS.

3) EXISTING FLOOR PLAN AND DIMENSIONS ARE BASED OF THE SURVEY DRAWINGS PROVIDED BY MULTIVISTA

ABBREVIATION

A.F.F - CEILING ABOVE FINISH LEVEL

GENERAL NOTES



B



N

П

ω

4

G

0

7

8

FINAL INSPECTION AND FINDINGS REPORT

		SELMA, AL	US ARMY CORPS OF ENGINEERS	DRAWN BY:	ISSUE DATE: 02/14/2025	$\neg \frown$				$\left(\begin{array}{c} \\ \end{array} \right) \left(\left(\begin{array}{c} \\ \end{array} \right) \left(\left(\begin{array}{c} \\ \end{array} \right) \left(\left(\left(\begin{array}{c} \\ \end{array} \right) \left($	<u>و کی او پ</u>
လု	BL &	SOLDIER PILE WALL PROJECT - STRUCTURAL ASSESSMENT	MOBILE DISTRICT 109 SAINT JOSEPH STREET	CHECKED BY:	TASK ORDER NO. : W91278-24-F-0153						Arr
<u> </u>		RPJV PROJECT NUMBER 12405997 1534.026	MOBILE, ALABAMA	SUBMITTED BY:	CONTRACT NO.: W91278-21-D-0003						inee inee
C C C	0 0	01 - 1000 WATER AVE, SELMA AL, 36703	RAYMOND POND ENTERPRISE SOLUTIONS JV LLC	CLIENT PROJECT NO. : 506849	CADD CODE: CHC23016						orp
		LEVEL I FLOOR PLAN	1224 ROYAL DRIVE CONYERS, GEORGIA 30094	SIZE: ANSI D			RK	DESCRIPTION	DATE		© v ⊃



SCALE:

NONE

KEY



1) ALL DIMENSIONS ARE IN FEET & INCHES, ANGLES IN DEGREE AND LEVELS IN FEET & INCHES UNLESS NOTED OTHERWISE (U.N.O.) 2) DRAWINGS SHALL NOT BE SCALED, FOLLOW WRITTEN DIMENSIONS.

3) EXISTING FLOOR PLAN AND DIMENSIONS ARE BASED OF THE SURVEY DRAWINGS PROVIDED BY MULTIVISTA

ABBREVIATION

A.F.F - CEILING ABOVE FINISH LEVEL

GENERAL NOTES



N

ω

4

G

0

7

8

9

DAMAGED FIREPLAC STEPPING BRICK

FINAL INSPECTION AND FINDINGS REPORT

	-	SELMA, AL		DRAWN BY:	ISSUE DATE: 02/14/2025	$) \qquad \qquad$			
လု	SH अ	SOLDIER PILE WALL PROJECT - STRUCTURAL ASSESSMENT	109 SAINT JOSEPH STREET	CHECKED BY:	TASK ORDER NO. : W91278-24-F-0153				Eng
2	G	REJV FROJECT NUMBER 12403997 1354.020		SUBMITTED BY:	CONTRACT NO.: W91278-21-D-0003				
4	01	01 - 1000 WATER AVE, SELMA AL, 36703	RAYMOND POND ENTERPRISE SOLUTIONS JV LLC	CLIENT PROJECT NO. : 506849	CADD CODE: CHC23016				rs @
_			CONYERS, GEORGIA 30094	SIZE: ANSI D		MARK	DESCRIPTION	DATE	

3) EXISTING FLOOR PLAN AND DIMENSIONS ARE BASED OF THE SURVEY DRAWINGS PROVIDED BY MULTIVISTA

2) DRAWINGS SHALL NOT BE SCALED, FOLLOW WRITTEN DIMENSIONS.

1) ALL DIMENSIONS ARE IN FEET & INCHES, ANGLES IN DEGREE AND LEVELS IN FEET & INCHES UNLESS NOTED OTHERWISE (U.N.O.)

GENERAL NOTES

ABBREVIATION

A.F.F - CEILING ABOVE FINISH LEVEL

FINAL INSPECTION AND FINDINGS REPORT

	SELMA, AL	US ARMY CORPS OF ENGINEERS	DRAWN BY:	ISSUE DATE: 02/14/2025				
S B B	SOLDIER PILE WALL PROJECT - STRUCTURAL ASSESSMENT	109 SAINT JOSEPH STREET	CHECKED BY:	TASK ORDER NO. : W91278-24-F-0153				
- 1	KFJV FROJECT NUMBER 12405997 1534.020		SUBMITTED BY:	CONTRACT NO.: W91278-21-D-0003	1			
000	01 - 1000 WATER AVE, SELMA AL, 36703	RAYMOND POND ENTERPRISE SOLUTIONS JV LLC	CLIENT PROJECT NO. : 506849	CADD CODE: CHC23016]			rs orp
	ROOF PLAN	CONVERS, GEORGIA 30094	SIZE: ANSI D		MARK	DESCRIPTION	DATE	

SCALE:

NONE

US Ai of En	Ħ
my (ginee	E

GENERAL NOTES 1) ALL DIMENSIONS ARE IN FEET & INCHES, ANGLES IN DEGREE AND LEVELS IN FEET & INCHES UNLESS NOTED OTHERWISE (U.N.O.) 2) DRAWINGS SHALL NOT BE SCALED, FOLLOW WRITTEN DIMENSIONS.

3) EXISTING FLOOR PLAN AND DIMENSIONS ARE BASED OF THE SURVEY DRAWINGS PROVIDED BY MULTIVISTA

ABBREVIATION

A.F.F - CEILING ABOVE FINISH LEVEL

9

6

7